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Figure 1

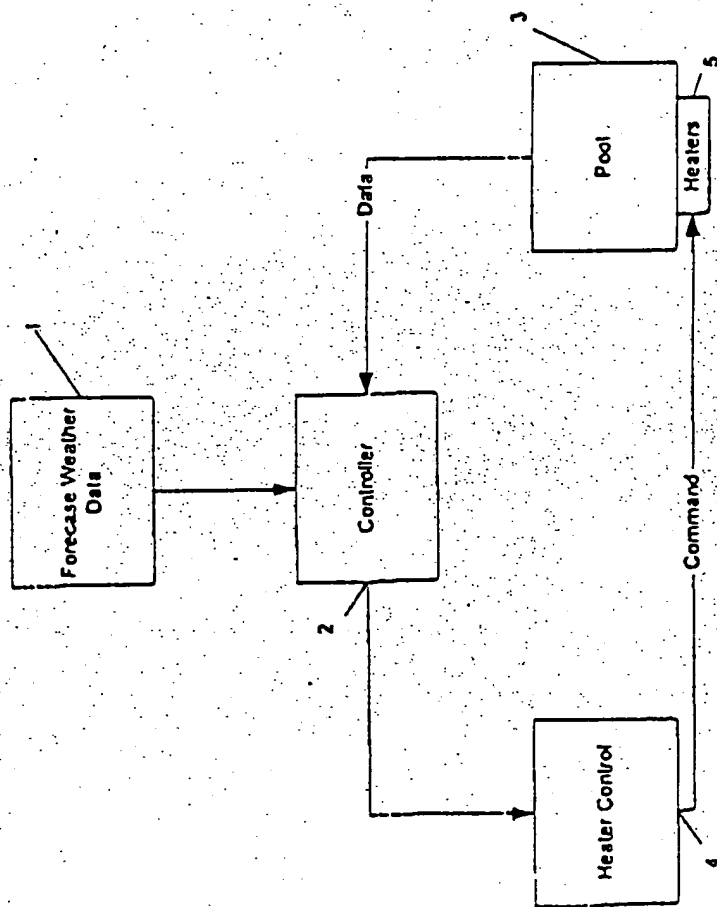


Figure 2

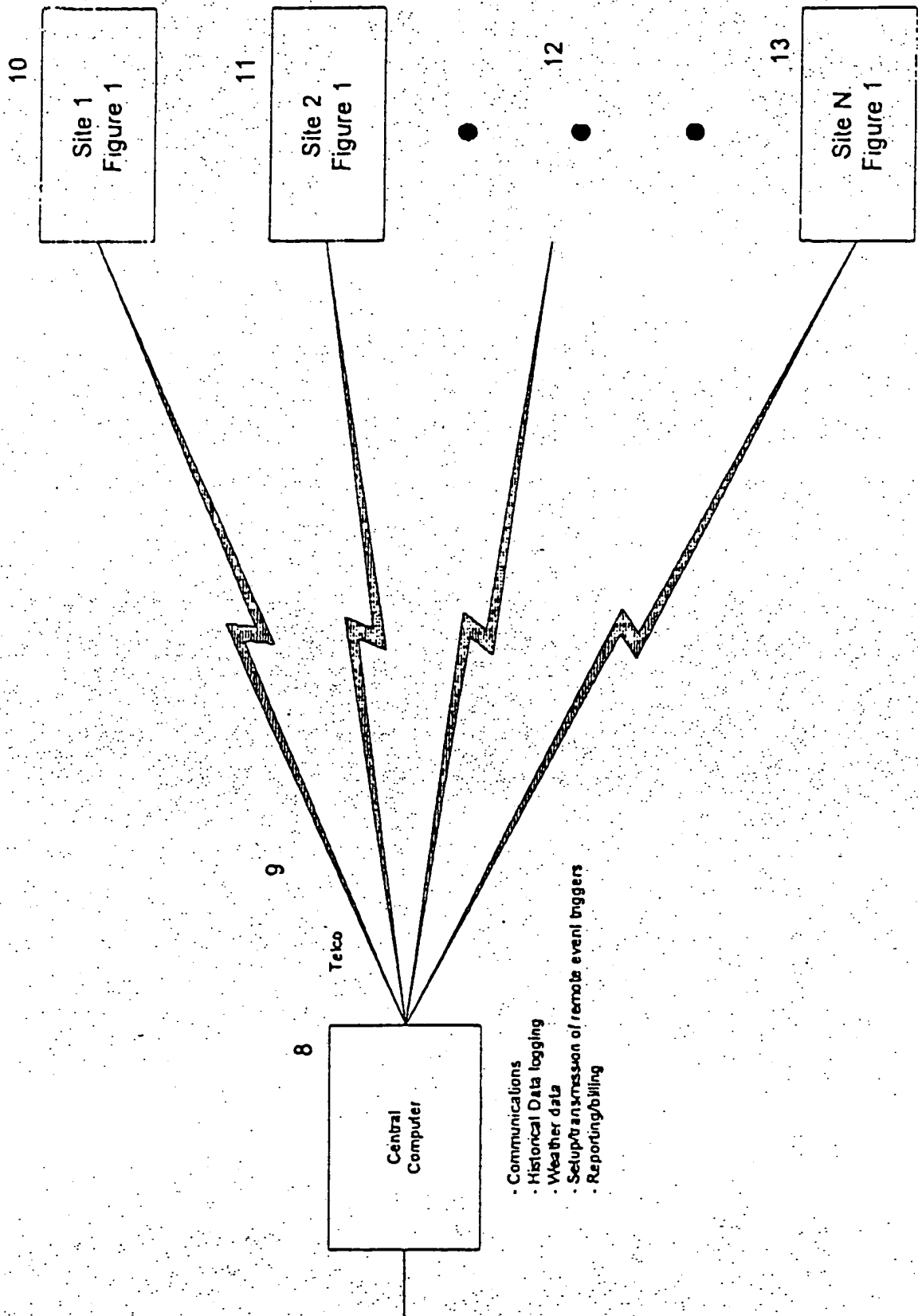


Figure 3

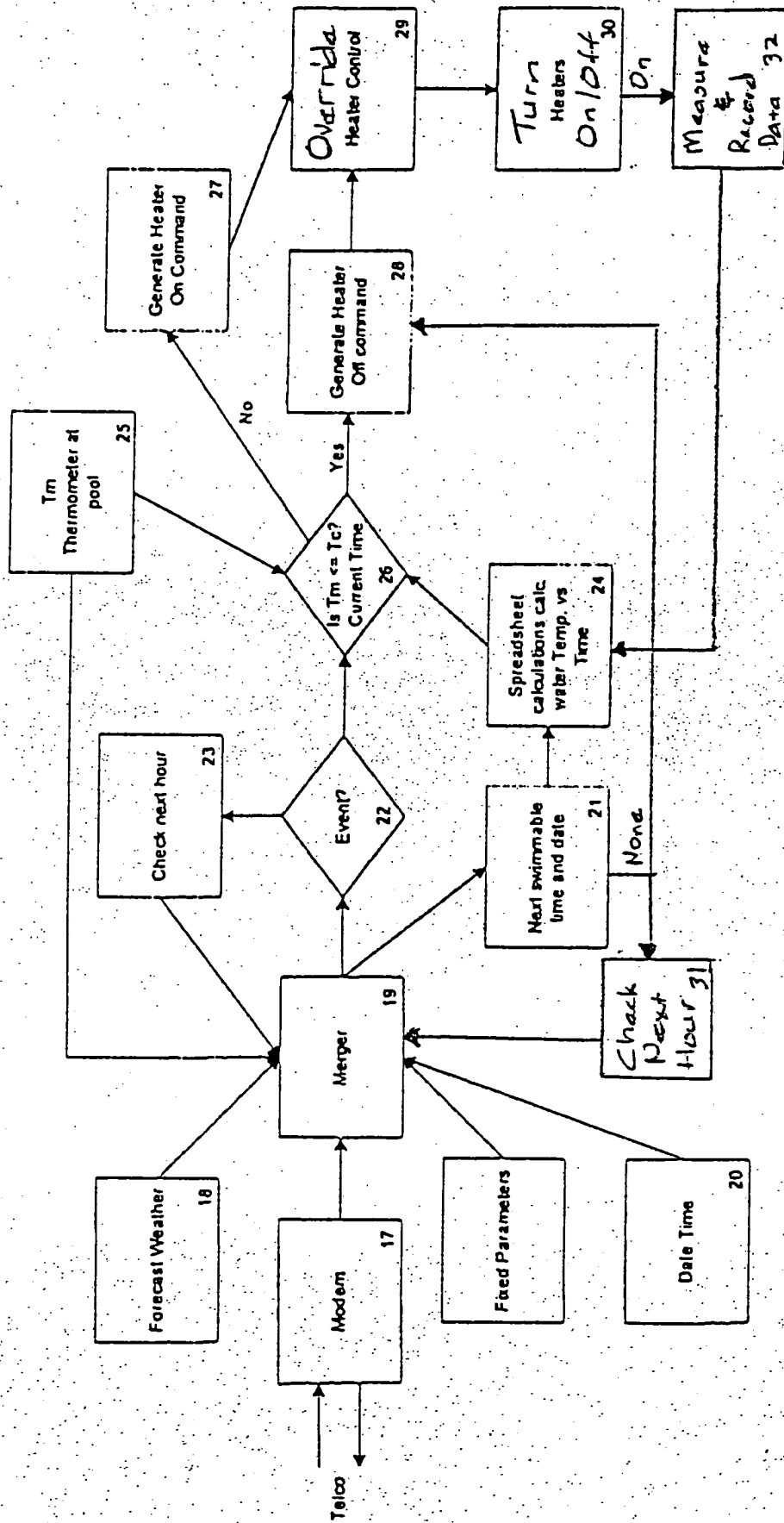


Figure 4

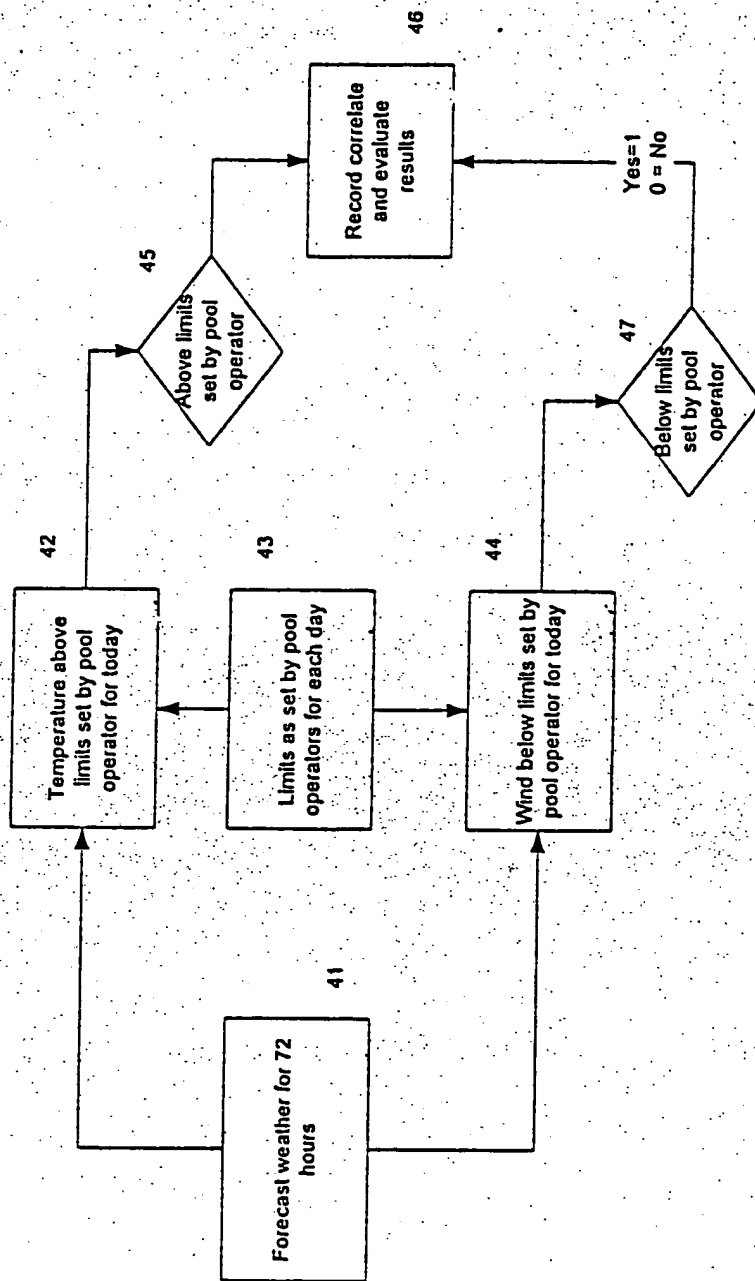


Figure 5 -

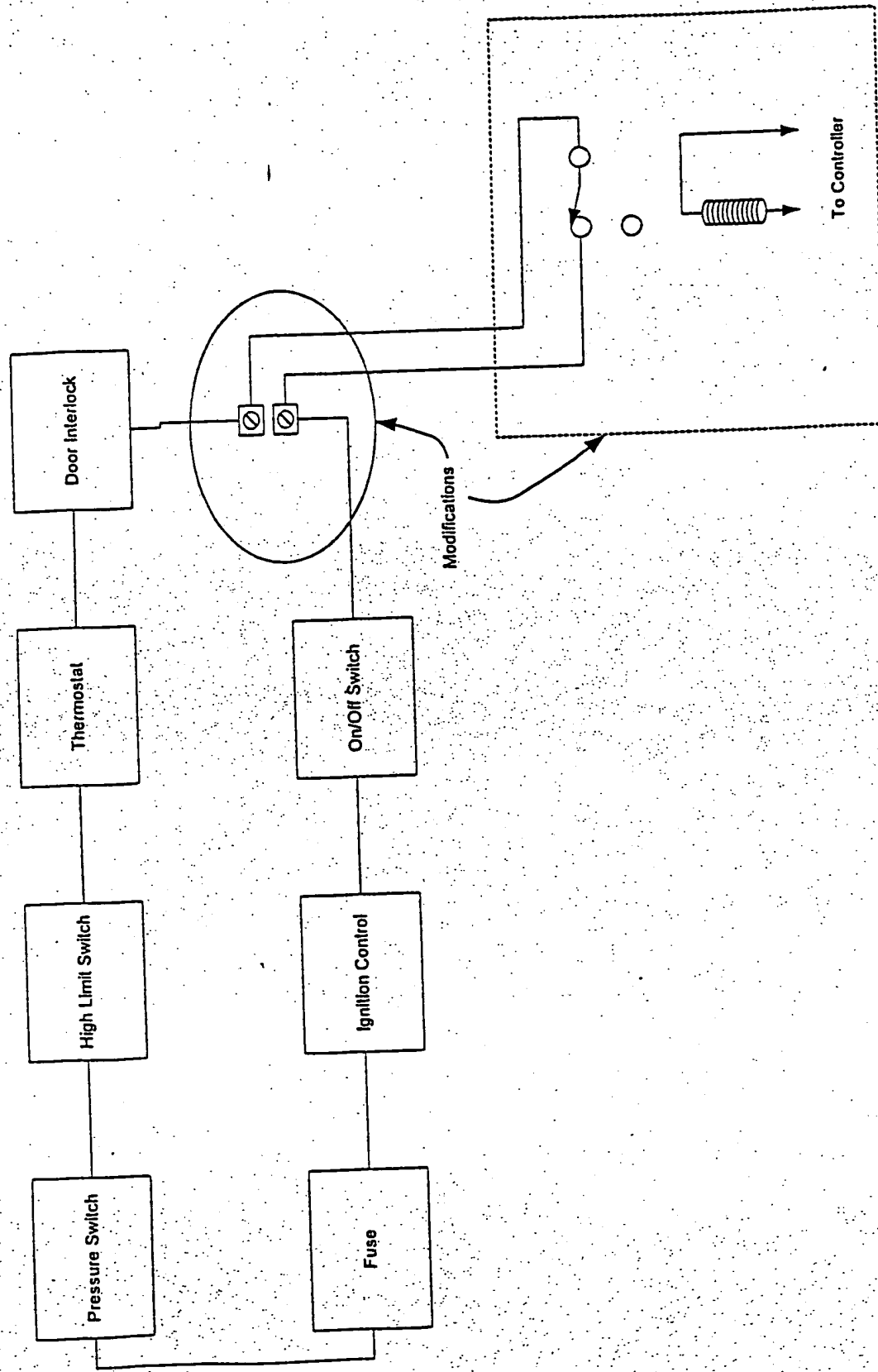
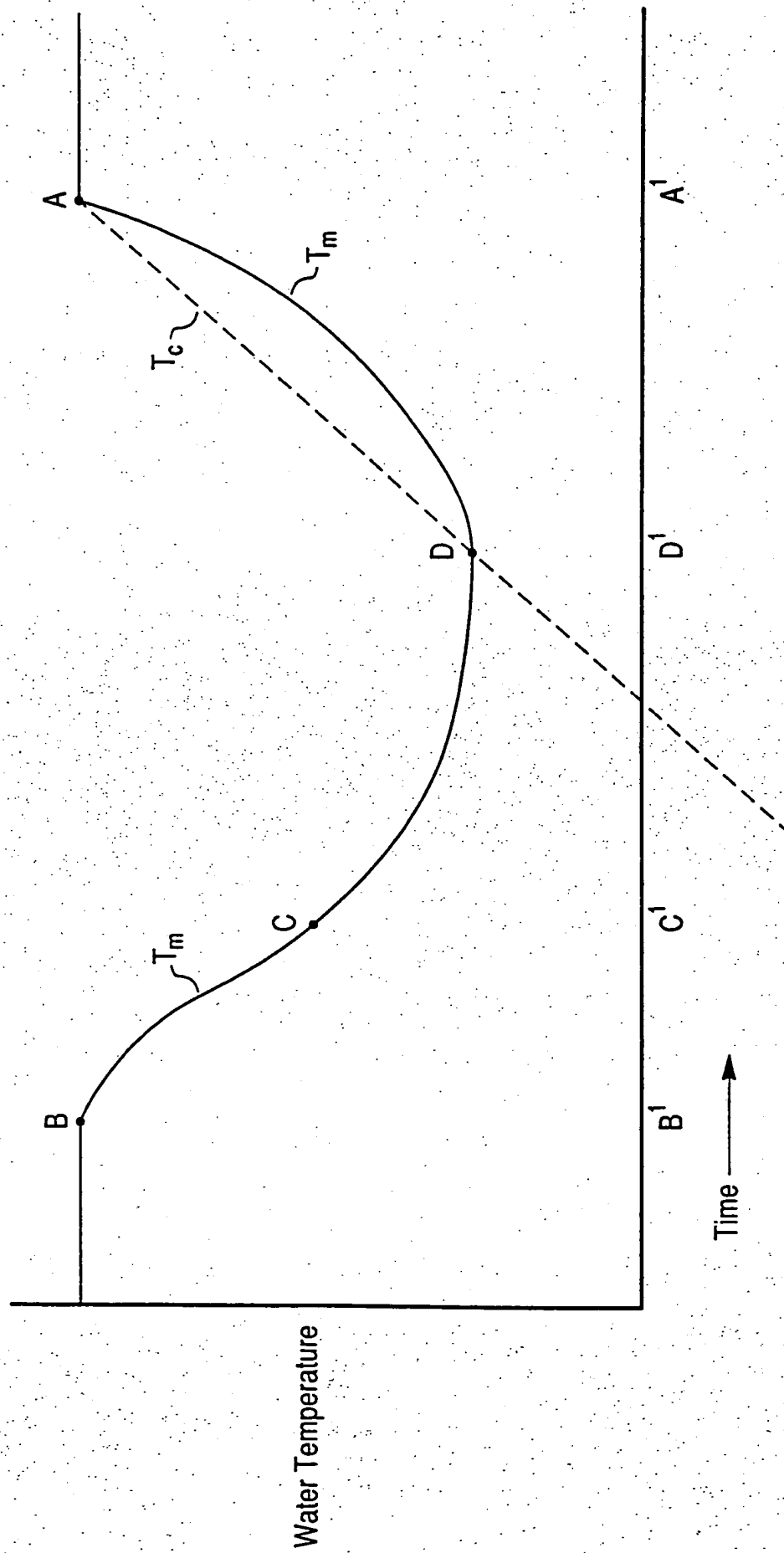


Fig. 6



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	1/15/10	10:01AM																			
2	Area F'	2,400																			
3																					
4	lbs of water	823,455																			
5	Oh Btu/s/hr	2,460,000																			
6																					
7	ΔTh	2.99																			
8	Altitude feet	2300																			
9																					
10																					
11		FinalNov19																			
12																					
13																					
14	1/15/10	10:00 AM	0.0	90.0	55.0	45.0	31.4	34.1	0.10	70.0											
15	1/15/10	11:00 AM	1.0	90.0	55.0	45.0	31.4	34.1	0.10		25.4	0.08	-0.01	15.0	571	509	0.01	-0.20	0.00	0.20	5.00
16	1/15/10	12:00 PM	2.0	90.0	55.0	45.0	31.4	34.1	0.10		28.7	0.09	0.01	15.0	586	509	0.03	-0.18	0.00	0.20	5.15
17	1/15/10	1:00 PM	3.0	90.0	55.0	45.0	31.4	34.1	0.10		32.1	0.10	0.02	15.0	602	509	0.05	-0.15	0.00	0.20	5.45
18	1/15/10	2:00 PM	4.0	90.0	55.0	45.0	31.4	34.1	0.10		35.4	0.12	0.03	15.0	618	509	0.07	-0.13	0.00	0.20	5.60
19	1/15/10	3:00 PM	5.0	90.0	55.0	45.0	31.4	34.1	0.10		38.6	0.13	0.05	15.0	634	509	0.10	-0.11	0.00	0.20	5.75
20	1/15/10	4:00 PM	6.0	90.0	55.0	45.0	31.4	34.1	0.10		41.8	0.15	0.07	15.0	650	509	0.13	-0.08	0.00	0.20	5.90
21	1/15/10	5:00 PM	7.0	90.0	55.0	45.0	31.4	34.1	0.10		44.9	0.17	0.09	15.0	666	509	0.17	-0.06	0.00	0.20	6.05
22	1/15/10	6:00 PM	8.0	90.0	55.0	45.0	31.4	34.1	0.10		48.0	0.18	0.11	15.0	682	509	0.20	-0.03	0.00	0.20	6.20
23	1/15/10	7:00 PM	9.0	90.0	55.0	45.0	31.4	34.1	0.10		51.0	0.21	0.13	15.0	698	509	0.24	-0.01	0.00	0.20	6.35
24	1/15/10	8:00 PM	10.0	90.0	55.0	45.0	31.4	34.1	0.10		54.0	0.23	0.15	15.0	712	509	0.28	0.01	0.10	0.00	6.50
25	1/15/10	9:00 PM	11.0	90.0	55.0	45.0	31.4	34.1	0.10		56.5	0.25	0.17	15.0	726	509	0.33	0.04	0.10	0.00	6.65
26	1/15/10	10:00 PM	12.0	90.0	55.0	45.0	31.4	34.1	0.10		59.1	0.27	0.20	15.0	740	509	0.37	0.06	0.11	0.00	6.80
27	1/15/10	11:00 PM	13.0	90.0	55.0	45.0	31.4	34.1	0.10		61.5	0.29	0.22	15.0	753	509	0.42	0.08	0.12	0.00	6.95
28	1/15/10	12:00 PM	14.0	90.0	55.0	45.0	31.4	34.1	0.10		63.9	0.32	0.25	15.0	766	509	0.47	0.10	0.12	0.00	7.10
29	1/16/10	1:00 AM	15.0	90.0	55.0	45.0	31.4	34.1	0.10		66.2	0.34	0.27	15.0	779	509	0.53	0.13	0.13	0.00	7.25
30	1/16/10	2:00 AM	16.0	90.0	55.0	45.0	31.4	34.1	0.10		68.4	0.37	0.30	15.0	792	509	0.58	0.15	0.13	0.00	7.40
31	1/16/10	3:00 AM	17.0	90.0	55.0	45.0	31.4	34.1	0.10		70.5	0.40	0.33	15.0	804	509	0.64	0.17	0.14	0.00	7.55
32	1/16/10	4:00 AM	18.0	90.0	55.0	45.0	31.4	34.1	0.10		72.5	0.42	0.35	15.0	816	509	0.70	0.19	0.14	0.00	7.70
33	1/16/10	5:00 AM	19.0	90.0	55.0	45.0	31.4	34.1	0.10		74.5	0.45	0.38	15.0	827	509	0.77	0.21	0.15	0.00	7.85
34	1/16/10	6:00 AM	20.0	90.0	55.0	45.0	31.4	34.1	0.10		76.3	0.48	0.41	15.0	838	509	0.85	0.23	0.15	0.00	8.00
35	1/16/10	7:00 AM	21.0	90.0	55.0	45.0	31.4	34.1	0.10		78.1	0.51	0.45	15.0	850	509	0.86	0.25	0.00	0.00	8.15
36	1/16/10	8:00 AM	22.0	90.0	55.0	45.0	31.4	34.1	0.10		80.0	0.54	0.45	15.0	863	509	0.87	0.28	0.00	0.00	8.30
37	1/16/10	9:00 AM	23.0	90.0	55.0	45.0	31.4	34.1	0.10		82.0	0.54	0.45	15.0	863	509	0.00	0.00	0.00	0.00	8.45

Figure 7A

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	1/16/10	9:01AM																				
2	Area F2	2,400																				
3	0																					
4	lbs of water	823,455																				
5	Qh Blu/s/hr	2,460,000																				
6	0																					
7	ΔTh	2.99																				
8	Altitude feet	2,300																				
9																						
10	sh5	Finalnov19																				
11																						
12																						
13																						
14	1/15/10	10:00 AM																				
15	1/15/10	11:00 AM																				
16	1/15/10	12:00 PM																				
17	1/15/10	1:00 PM																				
18	1/15/10	2:00 PM																				
19	1/15/10	3:00 PM																				
20	1/15/10	4:00 PM																				
21	1/15/10	5:00 PM																				
22	1/15/10	6:00 PM																				
23	1/15/10	7:00 PM																				
24	1/15/10	8:00 PM																				
25	1/15/10	9:00 PM																				
26	1/15/10	10:00 PM																				
27	1/15/10	11:00 PM																				
28	1/15/10	12:00 PM																				
29	1/16/10	1:00 AM																				
30	1/16/10	2:00 AM																				
31	1/16/10	3:00 AM																				
32	1/16/10	4:00 AM																				
33	1/16/10	5:00 AM																				
34	1/16/10	6:00 AM																				
35	1/16/10	7:00 AM																				
36	1/16/10	8:00 AM																				
37	1/16/10	9:00 AM																				
38																						
39																						

Figure 7B

	A	B	C	D	E	F	G	H	I
1	sh6	Finalnov19							
2	Vm	90	degrees						
3	Vmin(a)	5	mph						
4	WF(m)	0.15							
5									
6	Limit	10	mph						
7									
8			Vwa	Vwa	Vwa	Vwa	Vwa	Sum	Vwc
9		Vwf	[mph]	[mph]	[mph]	[mph]	[mph]		[mph]
10	#	[mph]	a	b	c	d	e		average
11	0	0	5.0	5.0	5.0	5.0	5.0	25.0	5.0
12	0	1	5.2	5.2	5.2	5.2	5.2	25.8	5.2
13	0	2	5.3	5.3	5.3	5.3	5.3	26.5	5.3
14	0	3	5.5	5.5	5.5	5.5	5.5	27.3	5.5
15	0	4	5.6	5.6	5.6	5.6	5.6	28.0	5.6
16	0	5	5.8	5.8	5.8	5.8	5.8	28.8	5.8
17	0	6	5.9	5.9	5.9	5.9	5.9	29.5	5.9
18	0	7	6.1	6.1	6.1	6.1	6.1	30.3	6.1
19	0	8	6.2	6.2	6.2	6.2	6.2	31.0	6.2
20	0	9	6.4	6.4	6.4	6.4	6.4	31.8	6.4
21	0	10	6.5	6.5	6.5	6.5	6.5	32.5	6.5
22	0	12	6.8	6.8	6.8	6.8	6.8	34.0	6.8
23	0	14	7.1	7.1	7.1	7.1	7.1	35.5	7.1
24	0	16	7.4	7.4	7.4	7.4	7.4	37.0	7.4
25	0	18	7.7	7.7	7.7	7.7	7.7	38.5	7.7
26	0	20	8.0	8.0	8.0	8.0	8.0	40.0	8.0
27	0	22	8.3	8.3	8.3	8.3	8.3	41.5	8.3
28	0	24	8.6	8.6	8.6	8.6	8.6	43.0	8.6
29	0	26	8.9	8.9	8.9	8.9	8.9	44.5	8.9
30	0	28	9.2	9.2	9.2	9.2	9.2	46.0	9.2
31	0	30	9.5	9.5	9.5	9.5	9.5	47.5	9.5
32	0	32	9.8	9.8	9.8	9.8	9.8	49.0	9.8
33	0	34	10.1	10.1	10.1	10.1	10.1	50.5	10.1
34	0	36	10.4	10.4	10.4	10.4	10.4	52.0	10.4

Figure7C

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	sh7														
2	Finalnov19														
3															
4	WBAB No.	12842													
5															
6				Sunrise	Sunset				Monthly	Screen	Daily	Daily			
7		Tilt °	*317.2	24hr	24hr				Shade	Room	Rain	Clear	Qs		ΔTs
8	Month	kWh/m ² /day	Blu/F ² /day	Clock	Clock	Hours	Blu/F ² /hr	Ap	Factor	Factor	Factor	Sky	Blu's/hr	lbs H ₂ O	[°F]
9	Jan	3.2	1015	7	19	12	85	2400	0.9	1	1	0.88	160,782	823,455	0.20
10	Feb	4.0	1269	7	19	12	106	2400	0.9	1			0	823,455	0.00
11	Mar	5.1	1618	7	19	12	135	2400	0.9	1			0	823,455	0.00
12	Apr	6.2	1967	7	19	12	164	2400	0.9	1			0	823,455	0.00
13	May	6.4	2030	7	19	12	169	2400	0.9	1			0	823,455	0.00
14	Jun	6.1	1935	7	19	12	161	2400	0.9	1			0	823,455	0.00
15	Jul	5.8	1840	7	19	12	153	2400	0.9	1			0	823,455	0.00
16	Aug	5.5	1745	7	19	12	145	2400	0.9	1			0	823,455	0.00
17	Sep	4.9	1554	7	19	12	130	2400	0.9	1			0	823,455	0.00
18	Oct	4.4	1396	7	19	12	116	2400	0.9	1			0	823,455	0.00
19	Nov	3.6	1142	7	19	12	95	2400	0.9	1			0	823,455	0.00
20	Dec	3.1	983	7	19	12	82	2400	0.9	1			0	823,455	0.00

Figure 7D

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Wx		Rise	Set		Open hr	9:00														
2	1/20/10	Sun	Hours	Hours		Closed hr	21:00														
3	FinalNov19		7	19		# hrs	12														
4																					
5																					
6																					
7	Hour	Day	Time	Sch. open	VwI [MPH]	WvI [DEG]	Ta [°F]	Rha [%]	Tdp [°F]	Rain [%]	VwI [MPH]	Ta [°F]	ReI [%]	VwI [MPH]	Sch. Logic	Wind Logic	Temp. Logic	D Rain Logic	E ABCD		Clear Sky Factor
8	1	1	0:00	No	15	90	55	45	34.1	0		55			0	0	0	0	0		
9	2	1	1:00	No	15	90	55	45	34.1	0		55			0	0	0	0	0		
10	3	1	2:00	No	15	90	55	45	34.1	0		55			0	0	0	0	0		
11	4	1	3:00	No	15	90	55	45	34.1	0		55			0	0	0	0	0		
12	5	1	4:00	No	9	90	55	45	34.1	0		55			0	1	0	0	0		
13	6	1	5:00	No	9	90	55	45	34.1	0		55			0	1	0	0	0		
14	7	1	6:00	No	9	90	55	45	34.1	0		55			0	1	0	0	0		
15	8	1	7:00	No	15	90	55	45	34.1	0		55			0	0	0	0	0		
16	9	1	8:00	No	15	90	55	45	34.1	0		55			0	0	0	0	0		1.0
17	10	1	9:00	Yes	5	90	55	45	34.1	0	5	55	0	10	1	1	1	1	1		0.8
18	11	1	10:00	Yes	5	90	58	45	34.1	0	5	58	0	10	1	1	1	1	1		0.5
19	12	1	11:00	Yes	5	90	61	45	34.1	0	5	61	0	10	1	1	1	1	1		0.8
20	13	1	12:00	Yes	5	90	64	45	34.1	0	5	64	0	10	1	1	1	1	1		0.8
21	14	1	13:00	Yes	5	90	67	45	34.1	0	5	67	0	10	1	1	1	1	1		1.0
22	15	1	14:00	Yes	5	90	70	45	34.1	0	5	70	0	10	1	1	1	1	1		0.8
23	16	1	15:00	Yes	15	90	73	45	34.1	0	15	73	0	10	1	1	1	1	1		0.8
24	17	1	16:00	Yes	8	90	76	45	34.1	0	8	76	0	10	1	1	1	1	1		0.8
25	18	1	17:00	Yes	15	90	79	45	34.1	0	15	79	0	10	1	1	1	1	1		0.8
26	19	1	18:00	Yes	15	90	82	45	34.1	0	15	82	0	10	1	1	1	1	1		0.8
27	20	1	19:00	Yes	15	90	85	45	34.1	0	15	85	0	10	1	1	1	1	1		0.8
28	21	1	20:00	Yes	15	90	82	45	34.1	0	15	82	0	10	1	1	1	1	1		0.8
29	22	1	21:00	No	15	90	79	45	34.1	0					0	0	0	0	0		
30	23	1	22:00	No	15	90	76	45	34.1	0					0	0	0	0	0		
31	24	1	23:00	No	15	90	73	45	34.1	0					0	0	0	0	0		
32										Sum	113	852	0	120							10.50
33										Avg	9	71	0	10							0.88
34										Limit	10	70	80								
35										Logic	1	1	1								

Figure 7E

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Final Nov 19																		
2																			
3	Vwm #																		
4	Time #									Pw-Pdp									
5			Vwf	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.60	0.70	0.80	0.90	1.00
6			1																
7			2																
8			3																
9			4																
10			5																
11			6																
12			7																
13			8																
14			9																
15			10																
16			12																
17			14																
18			16																
19			18																
20			20																
21			22																
22			24																
23			26																
24			28																
25			30																
26			32																
27			34																
28			36																

Figure 7F

	A	B	C	D	E	F	G	H	I
1	Finalnov19								
2									
3									
4									
5									
6			Wmf					Wmf	
7	Time	Time #	[DEG] mag.	X-Y Number		Time	Time #	[DEG] mag.	X-Y Number
8	00:01 to 06:00	1	22.5	1		12:01 to 18:00	3	22.5	17
9	00:01 to 06:00	1	67.5	2		12:01 to 18:00	3	67.5	18
10	00:01 to 06:00	1	112.5	3		12:01 to 18:00	3	112.5	19
11	00:01 to 06:00	1	157.5	4		12:01 to 18:00	3	157.5	20
12	00:01 to 06:00	1	202.5	5		12:01 to 18:00	3	202.5	21
13	00:01 to 06:00	1	247.5	6		12:01 to 18:00	3	247.5	22
14	00:01 to 06:00	1	292.5	7		12:01 to 18:00	3	292.5	23
15	00:01 to 06:00	1	337.5	8		12:01 to 18:00	3	337.5	24
16									
17	06:01 to 12:00	2	22.5	9		18:01 to 00:00	4	22.5	25
18	06:01 to 12:00	2	67.5	10		18:01 to 00:00	4	67.5	26
19	06:01 to 12:00	2	112.5	11		18:01 to 00:00	4	112.5	27
20	06:01 to 12:00	2	157.5	12		18:01 to 00:00	4	157.5	28
21	06:01 to 12:00	2	202.5	13		18:01 to 00:00	4	202.5	29
22	06:01 to 12:00	2	247.5	14		18:01 to 00:00	4	247.5	30
23	06:01 to 12:00	2	292.5	15		18:01 to 00:00	4	292.5	31
24	06:01 to 12:00	2	337.5	16		18:01 to 00:00	4	337.5	32

Figure 7G

	A	B
1	Finalhov19	
2		
3		
4		
5	Wmf	
6	[DEG]	Vw Matrix
7	mag.	Number
8	22.5	1
9	67.5	2
10	112.5	3
11	157.5	4
12	202.5	5
13	247.5	6
14	292.5	7
15	337.5	8

Figure 7H